

Fourth Edition

Integrating Computer Technology into the Classroom

SKILLS FOR THE 21ST CENTURY

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A p p e n d i x

Learning Tasks and Computer Functions

Learning Task	Computer Function Examples
Alter, Change, Convert, Modify, Vary	Use a spreadsheet to alter the data to produce a different graph. Convert a picture to create a different perspective, meaning, etc. Modify a sentence to create an opposite meaning.
Analyze	Use a spreadsheet to determine the smallest, largest, middle, etc. Use a database to find the most or least common characteristics. Use a spreadsheet to make a graph or chart.
Appraise	Use a graph to determine the solution to problem. Use a spreadsheet to evaluate.
Arrange	Use a database to arrange the states by their order of entry into the Union. Use a spreadsheet to arrange the cells from smallest to largest. Use the draw program to arrange pictures in correct sequence.
Assemble, Produce	Produce a drawing of how you would assemble the equipment for this experiment.
Assess	Use a digital camera to compare and contrast. Use word processing to write an evaluation. Use word processing to create a survey or record data on a spreadsheet or database.
Calculate	Create a formula to calculate the area of rectangles. Determine the average weight of five pumpkins.
Choose, Select, Categorize	Use a database to sort or match records according to common characteristics. Use the database of the presidents and select all who served two terms. Categorize the states by their electoral vote in the last three elections.
Classify, Identify, Isolate, List, Recognize	Identify the plants in the database that have particular characteristics. Use a word processing program to keep a list of your new words.
Collaborate, Cooperate, Contribute	Use email to collaborate with other students at a distant location. Use a word processing program to share ideas and conclusions with others.

(continued)

Learning Task	Computer Function Examples
Collect, Observe, Gather	Enter your data from the observation into the database. Observe how the line changes as you change the first variable. Use the Internet to gather information and data.
Combine, Match, Tabulate, Sequence	Use a spreadsheet to determine the most preferred drink and snack from your taste test. Determine how many perennials and annuals you have observed. Sequence the states according to their joining the Union.
Compare, Contrast, Differentiate, Discriminate, Relate	Compare last year's cookie sales to this year's cookie sales. Draw two pictures to help you differentiate between rotation and revolution. Use a spreadsheet with charts to show similarities and differences. Use a database to find common/uncommon characteristics. Use word processing to communicate similarities and differences. Use draw and copy functions to compare geometric shapes.
Deduce, Infer, Generalize	Use a database to analyze information to support generalizations. Based on the graph of the cookie sales for the last two years, how many will this class sell this year? Based on plants with similar characteristics in the database, how would you classify this example?
Describe, Outline, Paraphrase, Reconstruct, Rephrase	Use a word processor to outline the chapter. Paraphrase the information you found in the CD-ROM encyclopedia. Based on your research, write a story to reconstruct the events leading to the railroad strike.
Design, Plan	Create a drawing showing your plan for the house of tomorrow. Use the draw program to create a safe playground. Make a map of your neighborhood.
Diagram, Draw, Graph, Illustrate, Plot	Use a spreadsheet to make a chart. Use the digital camera to illustrate safety in the classroom. Use clip art/draw program to illustrate your newsletter.
Edit, Punctuate, Report, Write	Allow students to print their first drafts and then exchange with other students to proofread. Create a worksheet. Use spell check to correct spelling errors. Type a story and have members of the group proofread, make suggestions to clarify ideas, and edit the final copy. Gather information on a given topic and write a report.
Estimate, Formulate, Predict,	Use a spreadsheet to manipulate data for estimations and predictions with graphs. Use a database to sort, categorize, and support predictions. Use a database to predict the basketball scores for the teams in the NBA. On a spreadsheet, write formulas for students to multiply, subtract, add, and divide the NBA scores. Use the Internet to have the students estimate how much they would spend at three different stores.

Learning Task	Computer Function Examples
Interpolate, Interpret Extend	Analyze data collected on the spreadsheet and determine which planet will show your lowest and highest weight. Determine how many years it will take to arrive at a planet going a designated speed and record that on a database and spreadsheet. Then calculate your age upon arrival. Use the digital camera to take pictures of an experiment in various stages. Use the pictures and presentations in class.
Judge	Use a CD-ROM encyclopedia to review periods of history such as the World Wars and decide or judge which had the greater impact on modern life.
Judge, Evaluate	Make a judgment based on data collected from CD-ROM encyclopedias, the Internet, books, and <i>National Geographic</i> animal software as to which animal should be adopted as a pet. Use word processing to prepare a written report justifying your position. Use charts to make comparisons for evaluations.
Plan	Write a letter about opening your own business. Draw a floor plan in the draw program. Use a spreadsheet to plan your daily expenditures.
Solve, Determine	Use a spreadsheet to determine the classroom with the most square feet. Use a spreadsheet and database to solve word problems. Use the spellcheck to check spelling. Determine the mean, mode, and median scores from a basketball game. Determine which graph will best show the results.
Synthesize	Write a report using word processing, a spreadsheet, and a database.
Verify	Use a spellchecker to check your spelling words. Estimate math problems and then use a spreadsheet to verify the exact answers. Use databases to verify predictions.

This chart was prepared as part of a class exercise by teachers who participated in Project SMART summer training at the University of Memphis.